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## **311: 20 Questions**

- 1) Provide the time and date of oil or hazardous substance discharge, and the time and date of discovery that the discharge was reaching or threatening a waterway.

On April 9, 2019, the National Response Center (NRC) notified the U.S. Environmental Protection Agency Region 4 (EPA) that while conducting drilling operations the Tennessee Department of Transportation struck and ruptured a 12-inch gasoline transmission pipeline at the Nashville International Airport discharging an unknown quantity of gasoline product (NRC report #1242283). The breach occurred at 36.137048 degrees north and -86.660321 degrees west (see Figure 1 in Enclosure 1).

- 2) The time and date of the response to the discharge by EPA, START, and the PRP if applicable. Provide the name(s) of any contractor(s) employed.

Colonial shut the line down quickly after receiving notification of a potential line strike at 1105 hours local time on April 9, 2019. Colonial, their contractors, and the Nashville Airport Authority's on-site contractor first focused on excavating the immediate area around the pipeline rupture and establishing containment measures. Boom and absorbent pads were deployed at six downstream locations in McCrory creek, approximately 200 yards apart. Vacuum trucks were utilized to collect pooled fuel and portable tanks for waste liquid storage were staged onsite. Personnel were assigned to monitor the creek and areas between the creek and the ruptured line.

On April 9, 2019, the EPA and Tetra Tech START mobilized to the site and integrated into Unified Command. EPA Phone Duty Officer contacted Jackson, TN Outpost OSC Spurlin at approximately 1330 hours local time. OSC Spurlin arrived on-site at approximately 1640. OSC Jordan Garrard and START contractor Tetrattech, mobilized on April 9<sup>th</sup>, arriving in the evening. OSC Garrard assisted with field operations. The initial report from Colonial Pipeline (Colonial), the pipeline owner, indicated that approximately 750 barrels (31,500 gallons) of gasoline was discharged into a field located at the end of an airport runway. Once Colonial was able to evaluate the specific damage to the pipeline, the final estimated of the volume discharged was 340 barrels (14,280 gallons). The gasoline flowed eastward overland and in existing drainage features towards McCrory Creek, a tributary to the Cumberland River. Upon arrival on-scene, EPA observed pooled fuel within the drainage features leading to McCrory Creek. A multi-acre area of surface soils sloping towards McCrory Creek was impacted by

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the fuel. The area is Karst, which is a landscape under lane with eroded limestone which creates fissures and sinkholes allowing fuel to migrate unpredictably.

Contractors involved include:  
Premier  
CTEH  
Hepaco  
Tetrattech

- 3) The type of discharge (oil or hazardous substances), the type of oil or the chemical name and formula, the total amount of discharge in gallons, barrels, pounds, or kilograms; and the total number of days of discharge. If the solution discharged was a mixture, please give the percentages of substances in the mixture or solution.

The final estimated of the volume discharged was 340 barrels (14,280 gallons). The gasoline flowed eastward overland and in existing drainage features towards McCrory Creek, a tributary to the Cumberland River. The gasoline seeped into the subsurface and continues to periodically discharge to McCrory Creek. Colonial continues to maintain collection measures at the discharge.

- 4) The location of the discharge including street address, city, county, and state.

The incident occurred on the Nashville airport property. The pipeline discharge occurred at 36.137048 degrees north and -86.660321 degrees west. This is located near the end of a tarmac on airport property, Nashville, Davidson County, TN.

- 5) The description of the facility or vessel from which the material was discharged (i.e. pipeline, tank, well, ship, container, etc.).

A 12 inch gas pipeline used to supply the Nashville airport and the metro-Nashville area.

- 6) The total storage capacity (gallons, barrels, pounds, kilograms, etc.) of the facility or vessel responsible for the discharge.

Not applicable.

- 7) Did the oil or hazardous substances discharge into water? Yes

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- a. Please indicate the location, in relation to the facility or vessel responsible for the discharge, of the first water reached.

McCorry creek is located approximately nine hundred feet to the east of the discharge point. McCorry Creek flows approximately three miles to the Stones River. The Stones River flows approximately five miles to the Cumberland River.

- b. If not already in water, what is the distance between the source of discharge and the nearest water body?

The discharge reached McCorry creek within 24 hours of the discharge.

- c. Give the quantity of oil or hazardous substances reaching the water.

Exact quantity is unknown. As of April 19, an estimated 3,616 cubic yards of soil were stockpiled for removal, and 39,831 gallons of liquid were collected from the recovery trench; 837 gallons of the recovered liquid was estimated to be fuel. It is anticipated that additional soils and waste liquids will be generated as Colonial continues to recovery fuel from existing collection points. Colonial has installed multiple additional collection trenches and points to improve the efficiency of the collection of the fuel and continues to maintain and monitor the creek boom. Collection of fuel impacted water continues as sheening periodically occurs on McCorry creek.

- d. Give the quantity of oil or hazardous substances that did not reach the water.

Unknown. An estimated 14,280 gallons was discharged with 837 gallons collected to date.

- e. Describe the type of waterway affected (i.e. mudflat, sandflat, wetland, ditch, creek, bayou, tributary, stream, river, lake, etc.). Give the name of the waterway and bodies of water to which it connects.

McCorry creek is located approximately nine hundred feet to the east of the discharge point. McCorry Creek flows approximately three miles to the Stones River. The Stones River flows approximately five miles to the Cumberland River.

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- f. Provide a physical description of the receiving waters, including depth, width, and flow rate.  
Stream is approx. 20' in width with a water approx. depth of 6". Width, depth, flow vary due to the fact that the creek receives stormwater runoff from the airport.

- g. Indicate if any of the water bodies or connecting water bodies, as described above, are used for commerce, recreation, agriculture, etc.

The Stones River is used for recreation and the TN River is used for recreation and commerce navigation.

- h. List any sensitive environments (i.e. wetlands), endangered species, water wells and/or drinking water intakes impacted or potentially impacted by the discharge.

No sensitive environments identified.

- 8) Document how this spill violated the Clean Water Act.

Oil was discharged in sufficient volume and proximity to water to potentially create a sheen on a surface water connected to a navigable waterway.

- 9) Describe in detail what actually caused the discharge.

A TDOT drill rig penetrated a Colonial 12" pipeline resulting in discharge of gas.

- 10) Describe the damage to public health and the environment as a result of the spill. How many feet, miles, etc., of land and water were affected by the discharge? Was there observed damage to the terrestrial and aquatic biota and vegetation? Were any drinking water intakes forced to close? Were any persons required to evacuate? If yes, describe the damage.

The McCrory creek has visible fuel and sheening, but no aquatic damage or mortality was observed. Downstream water intakes were notified, but not impacted by the discharge.

Describe the procedures taken to clean up the discharge and to mitigate the environmental damage and public health threats. Include dates and times for the individual procedures. On April 9, 2019, the National Response Center (NRC) notified the U.S.

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Environmental Protection Agency Region 4 (EPA) that while conducting drilling operations the Tennessee Department of Transportation struck and ruptured a 12-inch gasoline transmission pipeline at the Nashville International Airport discharging an unknown quantity of product (NRC report #1242283). The breach occurred at 36.137048 degrees north and -86.660321 degrees west (see Figure 1 in Enclosure 1).

Colonial shut the line down quickly after receiving notification of a potential line strike at 1105 hours local time on April 9, 2019. Colonial, their contractors, and the Nashville Airport Authority's on-site contractor first focused on excavating the immediate area around the pipeline rupture and establishing containment measures. Boom and absorbent pads were deployed at six downstream locations in McCrory creek, approximately 200 yards apart. Vacuum trucks were utilized to collect pooled fuel and portable tanks for waste liquid storage were staged onsite. Personnel were assigned to monitor the creek and areas between the creek and the ruptured line.

As more heavy equipment arrived onsite, the drainage ditch located along the access road, to the north of the rupture, was excavated to below original grade by several inches, where possible. All excavations were affected by the extremely variable size of the fill material in the hillside. Underflow dams were installed at the end of the drainage ditch excavation and just prior to where drainage from the hillside was routed to enter McCrory Creek, southeast of the rupture. Several exploratory trenches and holes were excavated to target the release pathway. No product was initially observed in the trenches. No sheen or odor was discovered along the creek.

On April 9, 2019, the EPA and Tetra Tech START mobilized to the site and integrated into Unified Command. On-Scene Coordinator (OSC) Steve Spurlin reported to the Incident Command Post and OSC Jordan Garrard assisted with field operations. The initial report from Colonial Pipeline (Colonial), the pipeline owner, indicated that approximately 750 barrels (31,500 gallons) of gasoline was discharged into a field located at the end of an airport runway. Once Colonial was able to evaluate the specific damage to the pipeline, the final estimated of the volume discharged was 340 barrels (14,280 gallons). The gasoline flowed eastward overland and in existing drainage features towards McCrory Creek, a tributary to the Cumberland River. Upon arrival on-scene, EPA observed pooled fuel within the drainage features leading to McCrory Creek. A multi-acre area of surface soils sloping towards McCrory Creek was impacted by the fuel. The area is Karst, which is a landscape under lane with eroded limestone which creates fissures and sinkholes allowing fuel to migrate unpredictably.

The EPA tasked Tetra Tech START to assess air quality due to the gasoline volatilizing from the ruptured line. The area surrounding the release included a long-term parking lot approximately 100 meters to the west of the ruptured line, undeveloped land to the north, McCrory Creek to the east, and an airport runway to the south. EPA tasked Tetra Tech START, on April 10, to set up air monitoring locations to assess the site and potential impacts to surrounding areas, focusing on the nearest receptor area. Tetra Tech START was also tasked to provide intermittent air monitoring support in the work zones to confirm the success of personnel protective measures.

The secondary concern was migration of the discharged product into the down gradient surface

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water body, McCrory Creek. McCrory creek is located approximately nine hundred feet to the east of the discharge point. McCrory Creek flows approximately three miles to the Stones River. The Stones River flows approximately five miles to the Cumberland River.

On April 10, Tetra Tech START set up an AreaRae Pro air monitoring station between the site and the public parking lot to the west. The AreaRae Pro was configured with sensors for detection of oxygen, carbon monoxide, hydrogen sulfide, lower explosive limit (LEL), volatile organic compounds (VOCs), and gamma radiation. Tetra Tech START monitored the station from the site staging area via a computer using ProRae Guardian and VIPER telemetry. Due to VOC readings that ranged from 3 to 13 parts per million (ppm), three additional air monitoring stations were set up. All four stations sampled continuously until the evening of April 11.

On April 11, OSC Garrard discovered a location where product had emerged from the bank and began to discharge into McCrory Creek. Tetra Tech START used a MultiRae Pro to continuously monitor for VOCs and an UltraRae to spot check benzene concentrations to assist Colonial in their worker safety air monitoring during certain tasks. The START and Colonial air monitoring detections in the work zones were consistent for benzene. Benzene detections were seen as high as nine ppm but most detections ranged from three to five ppm. All detections in work zones were very short duration. When benzene was detected, the workers would stop and exit the work area. If the benzene levels remained elevated, the level of respiratory protection was increased and engineering controls were implemented.

To address the release to the creek, Colonial placed additional boom and absorbent pads over the discharging product until the vacuum trucks were positioned. Hand augers were used to delineate the product's below ground pathway to the creek. An interception trench was constructed up gradient of the discovered seeps along the creek bank. Once completed, a vacuum truck was used to remove the collected product from the trench.

On April 12, the perimeter air monitoring was discontinued, as the pipeline was no longer releasing product and the damaged line was temporarily repaired. Colonial discovered a second seep of product into the creek, approximately eight feet north of the first observed seep and expanded the trench to better intercept the pathway to the second seep. Product was observed collecting in the excavated drainage ditch along the access road, the vacuum truck was used to remove product from the ditch. Colonial Pipeline began excavating the surface soil along affected area of the hillside, an area approximately 150 feet wide, 300 feet long, and 0.5 feet deep to remove affected soil.

On April 13, Colonial identified an additional seep located approximately 20 feet upstream of the first observed seep. Colonial placed soft boom around the seep and utilized a vacuum truck to remove the product. Additionally, exploratory holes were dug along the northwestern and western portion of the hillside, nearer the airport to investigate other potential product pathways. Fill material composition prevented hand auger use. Colonial continued excavating affected surface soil from the hillside and using vacuum trucks for removing product collected in the trench. As the excavation proceeded, Colonial began to back fill and stabilize the excavated surface soil area to minimize sediment erosion.

On April 14, a portion of the boom in the creek failed due to higher water levels and a faster flow

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rate from an overnight rain event. Most of the downstream boom was still in place, and no sheen was observed downstream off the airport property. Colonial continued excavating and backfilling the affected surface soil area on the hillside and utilizing vacuum trucks to remove product collected in the trench.

On April 15, the Unified Command conducted a meeting to discuss future actions at the Site. In addition to EPA, Colonial, TDOT, and the Nashville Airport, the Tennessee Department of Environment & Conservation (TDEC) Water and Remediation programs were in attendance. Colonial presented the current status of the incident, committed to continue to conduct necessary actions to address the discharge, and opened dialogue with TDEC regarding future activities related to water quality and remediation. OSC Spurlin determined that Colonial had adequate resources in place to address the discharge and demobilized from the Site. OSC Spurlin utilized a local START to periodically monitor the ongoing work for the next week.

From April 15 to 19, Colonial continued to remove product from the trench and continued excavation and backfill on the affected hill near the rupture site.

As of April 19, an estimated 3,616 cubic yards of soil were stockpiled for removal, and 39,831 gallons of liquid were collected from the recovery trench; 837 gallons of the recovered liquid was estimated to be fuel. It is anticipated that additional soils and waste liquids will be generated as Colonial continues to recovery fuel from existing collection points. Colonial has installed multiple additional collection trenches and points to improve the efficiency of the collection of the fuel and continues to maintain and monitor the creek boom. In coordination with TDEC, Colonial has implemented a surface water quality sampling program.

Colonial has agreed to continue the applicable removal efforts and response operations until there is no longer a discharge or threat of discharge to the surface waters.

- 11) List the federal and state agencies contacted by the owner or operator at the time of the discharge. Also include the agency's location (mailing address, city, county and state), the date and time of notification, and the name of the official contacted.

The facility reported via the NRC report 1242283. The report notified TDEC, TEMA, EPA and other State and local agencies.

- 12) State whether an SPCC inspection was conducted and describe any findings.

Not applicable to this incident.

- 13) Document the spill history of the facility and list the discharges which have occurred at this facility within the past five years using the following table.

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DATE	AMT DISCHARGED	AMT IN WATER	SOURCE & CAUSE
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Not applicable

- 14) Provide the name, title, home address, and home/work telephone number(s) of the owner(s) of the vessel or facility responsible for the discharge.

Colonial Pipeline Co.  
3925 Anderson Farm Rd  
Austell, GA 30106  
Contact: Greg Glaze  
[ HYPERLINK "mailto:gglaze@colpipe.com" ]  
770 732-6888

- 15) Provide the name, title, home address, and home/work telephone number(s) of the operator(s) of the vessel or facility responsible for the discharge if different from the owner, and the relationship between the owner and operator (i.e. employee, contractor, subcontractor, lessee, etc.)

- 16) Provide the names, titles, home addresses, and home/work telephone numbers of the persons who have knowledge of the facts concerning the spill as an attachment to the report labeled "Table of Witnesses". Include EPA, State, and local officials, START/Strike Team members, other Federal agencies, the company, and the cleanup contractor in the table.

Steve Spurlin EPA OSC 731 394-8996  
Greg Glaze, Colonial 770 732-6888  
John Wyatt Colonial 423-713-7568  
Michelle Baker, Nashville Airport Authority 615 275-1444  
Ms. Toni Ostrander, TN Department of Environment & Conservation 615 604-0077

- 17) Does the owner or operator have a National Pollutant Discharge Elimination System (NPDES) permit or any other discharge permit provided by the local, state, or federal government? If yes, name and describe the permit.

N/A for this incident scenario.

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- 18) Has the facility ever been assessed a fine for this incident or any other discharge by any other government entity (i.e. city, county, state, federal)? If yes, name the agency or agencies that have assessed a fine(s) on the facility or vessel, and the date(s) when the fine(s) was assessed.

Unknown. Unlikely for this incident.

- 19) Include the Federal Project Number on the title (cover) sheet of the incident summary report.

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Name	Title	Address	Office Number	Cell Number